



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,945	01/31/2001	Sugitaka Oteki	202507US2	1573
22850	7590	09/26/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			POON, KING Y	
		ART UNIT	PAPER NUMBER	2625

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/772,945	OTEKI ET AL.	
	Examiner	Art Unit	
	King Y. Poon	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 July 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,6,7 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,6,7 and 11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/19/2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okino (US 5,754,705).

Regarding claim 11: Okino teaches an image processing method comprising the steps of: dividing image data into $m \times n$ pixels, having n lines with m pixels per one line (column 2, lines 50-67); transferring (from 104 to 105, fig. 3) each one of the n lines of the image data to a predetermined destination; switching the predetermined destination for the each one of the n lines of image data (column 3, lines 1-10); storing one lines of the image data of pixels (column 3, lines 5-10) in each of $(n-1)$ number of memories (306, fig. 2B); batch compressing the image data of mxn pixels (column 3,

Art Unit: 2625

lines 35-40), wherein said transferring directly transfer (n-1) lines of the n lines of image data to said (n-1) number of memories, and the remaining one of the n lines of image data directly to a compression unit based on the switching and transfer the (n-1) lines stored in the (n-1) number of memories to the compression unit (column 3, lines 30-50).

Okino, while discussion the well known conventional invention, does not disclosed a control unit for controlling the image processor.

However, Okino, in column 5, lines 15-30, teaches to use a controlling unit to control the entire image processor in his invention.

Since the conventional invention discussed by Okino is not controlled by human, it requires some kind of controlling device to control the timing of the operation.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the conventional invention to include: controlling unit to control the entire image processor in order for the conventional invention (image processor) to be properly functioning.

4. Claims 1, 2, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okino (US 5,754,705) in view of Itoh (US 5,305,310).

Regarding claims 1, 6: Okino teaches an image processor (image processing system, column 1, lines 10-15) comprising: a switch (note) configured to divide image data into $m \times n$ pixels, having n lines with m pixels per one line and to transfer (the image data are stored in a shift register and the control program itself) each one of the n lines of image data to a predetermined destination (306, column 3, lines 1-5); a storage

Art Unit: 2625

unit (306, column 3, line 1) including n-1 number of memories (7 lines of memories, column 3, lines 30-40, each line forms a memory) each configured to store one line of the n lines of image data (column 3, lines 1-5, column 3, lines 30-45); sending the image data of the image data to the predetermined destination; a compression unit (307, column 3, lines 18-21) which batch compresses the image data of m x n pixels, wherein (n) lines of image data are being send to said (n-1) number of memories, and a remaining one line of image data are being send directly to said compression unit; and to control the storage unit to transfer the (n-1) lines of the image data stored in the (n-1) number of memories to said compression unit (column 3, lines 30-41).

Okino, while discussion the well known conventional invention, does not disclosed a control unit for controlling the image processor.

However, Okino, in column 5, lines 15-30, teaches to use a controlling unit to control the entire image processor in his invention.

Since the conventional invention discussed by Okino is not controlled by human, it requires some kind of controlling device to control the timing of the operation.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the conventional invention to include: controlling unit to control the entire image processor in order for the conventional invention (image processor) to be properly functioning.

Note: Okino does not teach the detail of the buffer memory of column 3, lines 30-42, and how the data is being stored into the buffer memory.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to rely on other references that specifically teaches how a buffer memory is made of and how data is being stored into the memory, in order to make use of Okino's invention.

Itoh, in the same area of storing data in different column of a buffer memory, teaches that a buffer memory storing data in columns is made up with multiple FIFO memories/buffers (column 4, lines 23-32), and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly (column 7, lines 30-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Itoh to include: a buffer memory storing data in columns is made up with multiple FIFO memories/buffers, and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly as taught by Itoh such that Okino's system would be properly functioned. Using a well known method to supplement what Okino does not disclosed, but is essential for Okino's system to be operable would save the user a lot of time, money and effort in doing his own research.

Regarding claims 2, 7: Okino teaches wherein said storage unit comprises (n-1) number of FIFO memories (column 3, lines 40-50), and said control unit controls sending of each line of the image data divided by said dividing unit to said FIFO memories (column 3, lines 5-16), respectively.

Response to Arguments

5. Applicant's arguments filed 7/19/2006 have been fully considered but they are not persuasive.

With respect to applicant's argument that "the Office Action relies on column 3, lines 30-50, as disclosing the above discussed claimed features of transferring image data to memories, it is submitted that while the referenced portion of Okino states that "data of the first through seventh column is first stored in the buffer memory before being supplied to the compression processor," Okino does not depict or describe controlling a switch that divides image data to directly transfer lines of image data to memories. Restated, because of the lack of detail with which Okino describes portions of the invention shown in Figures 2a and 2b, on which the Office Action relies, it is submitted that it simply cannot be determined whether Okino describes directly transferring (i.e., transferring without an intervening component) of divided image data between a switch that divides the image data and memories," has been considered.

In reply: Okino does not teach the detail of the buffer memory of column 3, lines 30-42, and how the data is being stored into the buffer memory.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to rely on other references that specifically teaches how a buffer memory is made of and how data is being stored into the memory, in order to make use of Okino's invention.

Itoh, in the same area of storing data in to different column of a buffer memory, teaches that a buffer memory storing data in columns is made up with multiple FIFO memories/buffers (column 4, lines 23-32), and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly (column 7, lines 30-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Itoh to include: a buffer memory storing data in columns is made up with multiple FIFO memories/buffers, and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly as taught by Itoh such that Okino's system would be properly functioned. Using a well known method to supplement what Okino does not disclosed, but is essential for Okino's system to be operable would save the user a lot of time, money and effort in doing his own research.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 20, 2006



KING Y. POON
PRIMARY EXAMINER